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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,351	06/15/2001	Won-Il Jung	45323/DBP/Y35	8658
23363	7590	10/01/2003	EXAMINER	
CHRISTIE, PARKER & HALE, LLP 350 WEST COLORADO BOULEVARD SUITE 500 PASADENA, CA 91105			TSOY, ELENA	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 10/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/882,351

Applicant(s)

JUNG, WON-IL

Examiner

Elena Tsoy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-15 and 17-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-15 and 17-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

***Response to Amendment***

1. Amendment filed on August 18, 2003 has been entered. Claims 6 and 16 have been cancelled. New claim 23 has been added. Claims 1-5, 7-15, 17-23 are pending in the application.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Rejection of claims 1, 2, 5-7, 10-13, 21 under 35 U.S.C. 102(b) as being anticipated by Rourke et al (US 4,720,910) has been withdrawn.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1, 2, 5, 7, 10-13, 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rourke et al (US 4,720,910).

As to claims 1, 2, 5-7, 13, 21, Rourke et al disclose a method of preparing active cathode electrode material (See column 1, lines 7, 40-41) for a lithium secondary battery (See column 2, line 20) comprising: forming a dispersion of an insertion compound such as lithium complex metal oxide or V<sub>2</sub>O<sub>5</sub> (See column 2, lines 12-14), a conductive polymer material in a solution of a polymer in a volatile solvent, and evaporating the solvent using a spray dryer (See column 4, lines

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4-6) forming a particle in which the lithium complex metal oxide is encapsulated as a core material in a polymeric shell containing the inorganic salt and conductive material (See column 1, lines 43-54). The conductive polymer material is polyethylene oxide containing an inorganic salt to render the polymer ionically conductive (See column 2, lines 33-36), an atactic polyether *or* polyethylene oxide having an anionic group covalently bonded to the polymer chain (See column 2, lines 27-29) and an electronically conductive filler such as carbon black (See column 2, lines 37-38).

Rourke et al fail to teach that a solution of a conductive polymer material contains polyethylene oxide having an anionic group covalently bonded to the polymer chain *and* either an atactic polyether or polyethylene oxide containing an inorganic salt.

It is held that it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). See also In re Crockett, 279 F.2d 274, 126 USPQ 186 (CCPA 1960); and Ex parte Quadranti, 25 USPQ2d 1071 (Bd. Pat. App. & Inter. 1992).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used combination of polyethylene oxide having an anionic group covalently bonded to the polymer chain *and* either an atactic polyether or polyethylene oxide containing an inorganic salt as a conductive polymer material of Rourke et al since it is held that it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.

As to claims 10, 11, the amount of coated conductive polymer ranges from 6-11 to 52-90 wt % based on the weight of the lithium metal oxide (See column 3, lines 14-31).

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As to claim 12, a coating layer of the coated lithium complex metal oxide particle having diameter of 2 microns would clearly have thickness less than 1 micron since the particle is constructed from 70 wt % of the core and 18 wt % of the coating layer (See column 6, lines 36-45).

6. **Claims 3, 4, 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rourke et al (US 4,720,910) in view of Walker, Jr. et al (H1576) for the reasons of record as set forth in Paragraph No. 7 of the Office Action mailed on April, 2003 (Paper No. 11).

7. **Claims 8, 9, 14, 17-20, 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rourke et al (US 4,720,910) in view of Takahashi et al (US 5,679,480) for the reasons of record as set forth in Paragraph No. 6 of the Office Action mailed on April, 2003 (Paper No. 11).

8. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Rourke et al (US 4,720,910) in view of Takahashi et al (US 5,679,480), as applied above, and further in view of Walker, Jr. et al (H1576) for the reasons of record as set forth in Paragraph No. 8 of the Office Action mailed on April, 2003 (Paper No. 11).

#### ***Response to Arguments***

9. Applicant's arguments with respect to claims 1-5, 7-15, 17-23 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (703) 605-1171. The examiner can normally be reached on Mo-Thur. 9:00-7:30, Mo-Thu.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Elena Tsoy  
Examiner  
Art Unit 1762

September 29, 2003



**MICHAEL BARR**  
**PRIMARY EXAMINER**